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Technical Report

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Special Study on
Labour Force Groups

by

Paul D. Rosenbaum & Judith Bursten

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CANADA'S HEALTH PROMOTION SURVEY: TECHNICAL REPORT SERIES

SPECIAL STUDY ON LABOUR FORCE GROUPS

December 1988

Prepared by

Paul D. Rosenbaum & Judith Bursten
Evalusearch Planning and Evaluation Consultants

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HIGHLIGHTS

- Lower status workers report poorer health status than do higher status workers, e.g. blue collar and agricultural workers are least likely to rate their health as being excellent or very good.

- Workers in lower status occupations are less likely to describe their lives as being very stressful, but are also less likely to describe themselves as being very happy.

- Lower status workers are more likely to exhibit health risk behaviours, such as smoking, drinking, and lack of cardiovascular conditioning.

- Despite high status and high income occupations, managers and professionals differ in their health status and behaviours, with managers at greater risk than professionals.

- Workers in the various industrial sectors exhibit differing health risk behaviours and are at different health risks, e.g. workers in the transportation/communications sector exhibit relatively high rates of smoking, drinking and poor cardiovascular conditioning compared with workers in other sectors, and they are most likely to report their health as "fair" or "poor".

- Differences exist between men and women workers. For example, women generally report better health and lower rates of health risk behaviours.

- More than one million Canadian workers report some health-related activity limitation. Of these, approximately half a million (4.3% of all workers) report a limitation affecting them at work. Activity limitations among lower status workers are more likely to affect them at work than activity limitations of professionals and managers.

INTRODUCTION

Canada's Health Promotion Survey was conducted in 1985 as a major step in the development of a national health promotion policy for Canadians. The Health Promotion Survey (HPS) provides information about the health attitudes, health related behaviours, beliefs and health practices of Canadians. This paper examines some of the Survey results for working Canadians. Some implications of these findings for workplace health promotion programs are discussed.

The health promotion literature is replete with a variety of social variables and their relationship to health status. Social class, sex, occupation, ethnic group membership, have all been used to provide statistical predictors of health status and health related behaviours. By examining data from the HPS, this paper considers some of the middle ground between disease prevalence and the social categories which enhance the probability of health or its absence.

The HPS examined some of our perceptions about health and our behaviours with regard to health and health promotion. This report looks at some of these behavioural dispositions, and perceptions of health and health related behaviours among working Canadians.

Conducted in 1985, the HPS provides information about 10.4 million working Canadians age 15 and older; 6.4 million working men (61%) and 4 million working women (39%).

There are limitations to the use of the HPS as a guide to understanding health related factors from a labour force perspective. The Survey was not designed to be a labour force survey and many workplace issues remain for further exploration. For example, the Survey did not address questions about the nature of the workplace or of the individual's work. The differing health risks facing shift workers; the effects of workplace noise, danger or discomfort; the specific experiences of poorly paid women in industries in which higher level positions tend to be dominated by men, for example, are beyond the scope of the Survey and of this report. This report does, however, provide indications of further areas to be explored using methods specifically designed to address these questions.

METHOD

The data for this report were obtained from the HPS, conducted in June of 1985 by Statistics Canada on behalf of the Health Promotion Directorate of Health and Welfare Canada. The target population for the HPS was all persons 15 years of age and older living in Canada, with the exclusions of residents of the Northwest Territories and full-time residents of institutions. The sampling method employed was random digit dialing, administered to approximately 11,000 Canadians. The overall response rate was 81.9%. This was calculated as the number of

residential telephone numbers identified as a percentage of total numbers dialed. As is generally true in household surveys, a disproportionate number of non-respondents were male and young (i.e., aged 15-24 years). This pattern was taken into account in calculating the sample weights. [1]

All results in this report use weighted data reflecting the composition of the Canadian population as it was estimated to be in 1985, including demographic changes since the 1981 Census.

As this paper focuses on the workplace, only those respondents indicating that their primary activity during the last 12 months entailed working at a job or business were included in the analysis. The focus of this special study precludes an analysis of all of the variables that are covered in the HPS questionnaire in favour of those that are most relevant to health promotion in the workplace.

Occupational categories and industrial sectors used in this report are those contained in two standardized classifications developed by Statistics Canada.[2,3] Canada's Health Promotion Survey was not designed, however, as a labour force survey and these categories present certain limitations to the analysis.

Among other limitations, there are seven occupational categories and eleven industrial sectors presented in this report. Consequently, small sample size and high sampling variability for some industrial sectors and occupational groupings, yield results which preclude analysis when cross tabulated with certain health related variables.

We are interested in the relationships between position in a workplace hierarchy and health-related factors. For example, are managers more or less prone to certain risk factors than are other high status, high income workers? While we make reference to managers in this analysis, only those managers who could be clearly identified from their occupational categories were included. Others who identified themselves by occupation and who nevertheless have managerial responsibilities could not be identified.

The approach of this paper is to examine the relationship between position in the Canadian labour force and a constellation of health related variables. These variables include health status; health-risk behaviours such as smoking, drinking and exercise; general health knowledge; and, general health practices. The purpose of this approach is to look at health as a holistic concept, affected by several distinct but interrelated variables. See Appendix 1 for a complete description of the survey questionnaire.

HEALTH STATUS

Reported Health

Respondents in the HPS were asked to rate their health status from poor to excellent compared with other persons of the same age: "In general, compared to other persons your age would you say your health is...". Table A shows that in all occupational categories, most working Canadians consider themselves to be in good to excellent health, ranging from 90% to 93.8%.

Perception of health status is related to occupational status. Blue collar and agricultural workers are least likely to rate their health as excellent or very good, 58.9% and 66.1% respectively. It should be noted that managers and professionals do not share the same high perceived health status despite both having high incomes and relatively high status occupations. Both managers and professionals have the highest rates of "fair to poor" perceived health, most probably due to the older mean ages of these occupational groups.

Differences in perceptions of health are also found between industrial sectors. As can be seen in Table B, the labour intensive primary and construction industries and the transportation/communication industry contain workers least likely to perceive their health status as "excellent" or "very good". In addition, workers in these sectors are most likely to see health as "fair to poor", compared to other industrial categories.

Generally, workers in the service sectors report health to be better than workers in manufacturing and extractive industries. Wholesale, retail, finance, and community service sectors have workers with generally higher reported health status.

Emotional Health

Emotional health may be implied in the HPS with two questions assessing the respondent's general level of "happiness" and "stress".

In recent years, the concept of stress, a term applied to the complexity and rapid pace associated with modern living, has been implicated in a wide variety of health-related problems. In the HPS respondents were asked to report the level of stress in their lives (see Table C). Based on self-perceived stress, rather than based on job-intrinsic factors, the Survey found blue collar workers to have lower stress than other working groups. Clerical workers also report relatively low levels of stress. Managers report the highest level of stress, although professionals too report high stress in their lives.

While working Canadians report a high degree of happiness, as shown in Table C, occupational differences are found. In a pattern largely the inverse of that reported for stress, happiness tends to increase with job status and

income. Professionals, are the most happy and a relatively high degree of happiness is found among managers. Blue collar and agricultural workers are the least likely to report themselves to be very happy. Service workers are most likely to indicate that they are "not too happy".

Highest levels of stress are reported in certain service industries (see Table D). The highest proportion of "very stressful" lives are found in the financial sector, although high levels are also reported in wholesale and community services sectors. Lowest percentages of high stress are reported by workers in the manufacturing, hospitality, and transportation and communications sectors.

Certain occupational groupings are less likely to contain very happy workers. This is especially true of the wholesale sector which also reports higher levels of stress than does the labour force generally. Industries with the highest levels of unhappy workers are construction, and hospitality, although in neither case does the percentage exceed 5% of the labour force.

Health Status of Men and Women

Differences in perceptions of health status are found between men and women workers. In almost every occupational group (see Table E), women workers report higher levels of overall health. This better reported health by women is especially true for women in managerial occupations.

Women are generally less likely to report very stressful lives, as can be seen in Table F. One occupational difference in the emotional life of Canadian workers is found among women managers who, although much more likely than men to report excellent overall level of health, are somewhat more likely to describe themselves as being unhappy (4.9%).

While women generally report better health than do men, this is not the case in all industrial sectors (see Table G). Most noteworthy, perhaps, is the high rate of "fair to poor" health reported by women in the wholesale sector (22.4%), while only a negligible number of men in this sector report poor health.

Along with higher levels of "fair to poor" health, women in the wholesale sector also report higher levels of stress (see Table H). Indeed, approximately one in five women in this sector report very stressful lives, higher than that reported by women in any industrial sector and higher than men in all sectors with the exception of financial services. While women are somewhat more likely to report stressful lives, some industrial sector differences exist. For example, men in the financial services sector report their lives as being more stressful than women in this industry.

Women in the wholesale sector, despite poorer reported health and high levels of stress, do not report themselves to be unhappy relative to men in this sector, although for men and women, there are relatively few workers reporting themselves to be "very happy" when compared to other industrial categories. Women in the retail

and hospitality sectors are more likely to report themselves to be "very happy" when compared with men in these two sectors. More women in the hospitality sector report themselves as "not too happy" than do women in any other sector. Men in construction are twice as likely to report being "very happy" than are women in this sector, however, a significant proportion (4.6%) report being "not too happy", more than men in any other sector.

Related Research

Our perceptions of health are an important indicator of overall health. In some studies, perceived health status has been shown to be a better predictor of mortality than objective health status measures. The Manitoba Longitudinal Study on Aging, for example, discovered the rate of mortality for individuals whose self-reported health is poor were three times higher than those who self-rated health to be excellent; perceived health status being a better predictor of mortality than was objective health status.[4]

Health status as an indicator of morbidity, rather than as a predictor of excess mortality, has shown the same relationship. Goldstein, *et. al.*, in a panel study of more than 900 subjects participating in the Los Angeles Health Survey found a positive relationship between perceived health status and chronic illness, but not with acute illness.[5] They also found that changes in perceived health could not be predicted by changes in objective health, and concluded that perceived health may be measuring an underlying personal sense of illness.[5]

Occupational categories fall within a social status hierarchy. Professionals and managers occupy high status positions by virtue of their income, education and position within the workplace hierarchy. Blue collar, service and clerical workers occupy lower status occupations. Generally, these workers earn less money, have less education and occupy less desirable positions.

Differences in perceived health status between occupational categories may be attributable to differences in job status and income. Lower socio-economic and occupational status have been shown throughout the literature to be very strong predictors of morbidity and mortality. Professionals and managers are likely to be higher wage earners and have better perceived health status compared to other occupational categories.

Atkinson, *et. al.*, in a national survey of 3,288 Canadians found income to be related to both objective health status and perceived health.[6] In a variety of studies, lower income has been shown to be related to lower perceived health, higher mortality rates and higher morbidity rates.[7,8,9,10]

In the United States National Health Survey, low income was related to poor self-assessment of health. In addition, the U.S. study showed white collar workers to have better self-assessed health than blue collar workers.[8] These findings are paralleled in the HPS.

A number of psychosocial and physical factors (e.g. age, blood pressure, serum cholesterol, smoking) have been shown to interact with occupational status to increase or reduce health status. For example, in one study women

clerical workers, with children, married to blue collar workers were at highest risk of developing coronary heart disease. Working women in low-paying occupations and with family responsibilities may be at greater health risk due to the pressures of fulfilling dual roles, neither of which are culturally prestigious. [12, 13, 14]

Despite the increased overall health risk for blue collar workers, the HPS data indicate that these workers are less likely to report stress in their lives. This finding is based on a general self-perception of stress rather than focusing on job-intrinsic factors. Many types of occupational stress have been identified which may have deleterious effects on health.[15, 16, 17, 18, 19, 20, 21, 22] Cooper reviewed major research studies which identified sources of stress related to intrinsic job factors. These included: poor physical working conditions; shift work; work overload and underload; physical danger; role conflict and ambiguity; lack of job security; and, lack of support. [23] These data, however, are not available in the HPS.

In a review of the literature on stress, Baker concludes that stress can have physiological, psychological and behavioural effects.[15] Stress has been shown to cause physiological strain demonstrated by changes in heart rate and blood pressure.[15] Behavioural effects of stress include less productivity, errors, absenteeism, and more negative behaviours, such as smoking and substance abuse.[15, 22, 23] Studies have also shown an association between occupational stress and mental health outcomes.[15, 18, 19, 22]

Occupational status has been shown to be related to health status among working women. Women working at low status jobs self-report poorer physical and mental health and higher non-obstetrical hospitalization. A number of studies have singled out women in clerical and blue collar jobs to be particularly at risk. [24, 25, 26]

The HPS, too, suggests blue collar women to be at special health risk. Despite the overall better health found among women workers, women in blue collar occupations are least likely to say that their health is "excellent" and most likely to report "fair or poor" health.

The concept of stress appears to be different between low status and high status occupations. Job-related stress factors for blue collar workers include monotony, repetition, inability to set pace, highly-paced work and lack of control over the work environment.[15, 22, 23] These stress factors were demonstrated to have adverse physiological and psychological effects.[15, 16, 17, 18, 19, 20, 21, 22, 23]

The literature on managerial stress identifies work overload as the primary stressor.[16, 27, 28, 29] This source of stress is related to increased smoking, increased cardiovascular-vascular disease morbidity and mortality. In addition, one's role in the organization, relationship with other staff, control in decision making were all identified as potential sources of stress.

In a study of executive stress and health, differences between men and women were explored.[29] Health status measures, sources of work stress and personality factors were compared for 311 male and 171 female senior

managers. For those subjects identified to be at higher risk of illness due to stress, men appeared at greater risk for physical ill health and women at greater risk for mental health problems.[28, 29]

These findings are similar to those found among managers in the HPS. Men in this occupational group have poorer health than do women, while women managers report lower levels of happiness than do men.

Activity Limitation

Canadian workers were asked in the Survey if they experience activity limitations: "Are your activities limited at work or school?" More than one million Canadian workers (11%) indicate such a limitation. Of these, 443,000 (4.3% of all workers), indicate an activity limitation affecting them at work. The HPS did not address the nature and severity of the limitation or the degree to which this limitation may involve bed-days or absenteeism, although it does provide some information on the distri-bution of work-related activity limitation.

Activity limitation resulting in a workplace limitation is higher for working women than for working men (see Table I). Of the 13% of women reporting some kind of activity limitation due to health problems, 40.5% are limited at work. Almost 19% did not state whether this activity limitation affected performance in the workplace.

Among men, 10% report activity limitations due to health problems, with 34.5% of these imposing limitations at work. Of those men reporting some kind of activity limitation, 24% did not state whether this affected workplace performance.

Although men in managerial and professional occupations are more likely to have activity limitations (11.4% compared with 9% of all other working men), these high status workers are far less likely to have this activity limitation affect them at work. Men in clerical, sales and service occupations are most likely to report an activity limitation to affect them at work and, although they are least likely to report any activity limitation (8.8%), this greater likelihood that a limitation will affect work results in a greater percentage of these men actually experiencing work-related activity limitations.

Unlike professional and managerial men, women in these occupations are least likely to report an activity limitation when compared with other working women, although it should be noted that women in <u>all</u> occupational groups report higher levels of activity limitation than do men. As with men, professional and managerial women are also least likely to have an activity limitation affect them at work. Women in blue collar occupations are somewhat more likely to experience work-related activity limitations than are women in clerical, sales and service occupations.

Of the entire male work force, men with workplace limitations are somewhat more likely to be found in blue collar occupations. Thirty-eight percent of those indicating a workplace disability are blue collar workers. Partly

as a result of women being disproportionately found in the service sector, approximately three out of every four women reporting activity limitations at work are found in clerical, sales and service occupations.

Related Research

A relationship between sex and morbidity has been consistently demonstrated, with women having higher age-standardized rates of acute conditions and of non-fatal chronic conditions.[5, 30, 31] Poor women are especially prone to acute and chronic physical ailments and mental disorders. The literature also indicates that employed women lose more days of work due to illness compared with men.[24] The Health Promotion Survey, too, suggests higher rates of activity limitation among women workers.

In the U.S., a study based on the National Health Interview Survey examined chronic and acute illness, and disability by occupational income. The study found that those earning less than $10,000 a year are more likely to become disabled. White collar workers have a lower rate of illness and disability than did blue collar workers. Leading causes of disability are back problems, heart problems, arthritis and rheumatism.[32] Some studies indicate that blue collar workers have more bed days and restricted activity days than do managerial and professional workers.[33]

While the HPS did not examine the nature and severity of activity limitations among the one million Canadian workers so affected, workers in lower status occupations are more likely to be "occupationally disabled" by an activity limitation; that is, to have the limitation affect them at work. The degree to which this is due to intrinsic demands of the job, nature of the disabilities, reduced flexibility in hours or working conditions, or other factors remains for further research.

HEALTH RISK BEHAVIOURS

Several behaviours have been clearly implicated in increased risk of ill health, especially cardiovascular disease and cancer. These behaviours which were measured in the HPS include: smoking, excessive alcohol consumption, and sedentary behaviour. In addition, the survey also allows for an examination of a constellation of several lifestyle variables.

Smoking

Slightly more than one in three Canadian workers smoke (36.8%), or about 3.8 million working people. As can be seen in Table J, blue collar workers and service workers are most likely to smoke (46% and 42%), while professionals, managers and agricultural workers are least likely to smoke (27%, 30% and 29%).

As can be seen in Table K, smokers are most likely to be found in the hospitality industry (48% of workers in this sector), transportation and communication sector (44%), manufacturing and construction sectors (43%), and primary industries (41%). Sectors with the lowest smoking rates include agriculture (22%), financial services (28%) and government (30%).

Working men and women are about as likely to smoke (37% of men and 36% of women). Within most occupational groups, men and women indicate similar rates of smoking (see Table L). Blue collar men and women, for example, share high rates of smoking. Differences are found, however, among managers and agricultural workers. In both cases, women in these occupational groups are more likely to smoke than are men. The reader shall be reminded, however, that results in industrial categories with such low sample counts may not be reliable because of sampling variability.

Women in the agricultural, primary, construction, wholesale and financial services sectors are more likely to be smokers than are men in these industrial sectors (see Table M).

Alcohol Consumption

Beverage alcohol use, especially at higher levels of consumption, can cause physical health problems. Among researchers there are still questions concerning the level above which drinking becomes unsafe. There is no single answer to the question "How much is too much?" Some Canadian research evidence suggests that drinkers are much more likely to experience health problems when they consume four or more drinks per day on three or more occasions per week.[34, 35]

Respondents in the Health Promotion Survey were asked about their drinking during the seven days preceding the Survey. Those who reported having consumed four or more drinks on three or more occasions are reported here to have been "drinking at risk". It is important to note that those are drinkers who reported drinking "at risk" only during the week immediately preceding the Survey. Other drinkers who did not report drinking "at risk" during this one week period may well have consumed "at risk" levels on weeks other than the one monitored. Thus, these data may be used to make comparisons between occupational and industrial sector groups, but not to draw conclusions about the total number of working Canadians who may drink at levels posing a health risk.

Despite their higher status and greater incomes, managers report the highest levels of risk-related drinking in the week prior to the survey. Blue collar workers, too, report relatively high levels of risk-related drinking. As can be seen in Table J, approximately 7% of managers and 6% of blue collar workers consumed at least four drinks on three or more occasions in the week prior to the Survey.

Certain industrial sectors are marked by a work force reporting higher rates of risk-related drinking in the week prior to the survey (see Table K). Workers in the transportation and communications sector and primary industrial sector are the most likely to report drinking at risk. As has been noted in a number of other surveys, Canadian men report more drinking and drinking at higher levels than do Canadian women. While 6.5% of working men consumed alcohol at risk levels in the week prior to the survey, only 1.5% of working women did so.

As can be seen in Table L, men in some occupational groups are more likely to drink at risk. These include managers and men in clerical occupations. Women, in all occupational groups are less likely to drink at risk than are men.

When risk-related drinking is examined by the industrial sector in which respondents work, men in transportation and communications appear to be at especially high risk of alcohol-related health problems (see Table M). More than 11% of men in this sector report having consumed at least four drinks per day three or more times in the week prior to the survey. This rate is much higher than that observed in all other industrial sectors.

Because of the small number of women in traditionally male dominated industries and the reduced likelihood of women engaging in risk related drinking, data for analysis of drinking behaviour among women in many industrial sectors are not available. Generally speaking, those women who drink, drink less. One notable exception, however, is that approximately half of women in construction (49%) report drinking four or more drinks at least once in the week prior to the survey, more than any other industrial or occupational group regardless of sex.

Sedentary Behaviour

The HPS asked respondents the number of days per week they exercise for at least 15 minutes. Cardiovascular conditioning requires this level of physical activity three times per week. Of working Canadians, almost half (47.3%) were at health risk because of sedentary behaviour (see Table J). More than one in five working Canadians exercises less than once per week. For both men and women, professionals and those in service occupations are at the lowest levels of sedentary risk.

As can be seen in Table L, working men and women are equally likely to be at sedentary risk. There are, however, differences between occupational groups. Among men, clerical workers and managers are at higher sedentary risk than are women in these groups. For women, professionals are at higher sedentary risk than are men in this group, but sales workers are the most sedentary. Workers in some industrial sectors report far less exercise. Overall, financial services, workers in manufacturing and transportation and communications industries are least likely to exercise (see Table K).

Workers in the hospitality industry and those working in government services have the highest rates of acceptable exercise levels. These patterns are quite different for men and for women, however, as indicated in Table M. Women in financial services and manufacturing are at special sedentary risk, compared to women of other sectors and men in these sectors. Women in the wholesale sector are most likely to exercise three or more times weekly, while men in this sector are the least likely to exercise of any sector.

Lifestyle

Lifestyle, defined as a combination of health-related behaviours, has been shown to influence health outcomes. Good health practices can impact on future illness and mortality. A Health Practices Index, developed by the Technical Committee for the HPS, selects a number of health practices known to influence health risk. These include blood pressure checks, exercise, smoking, alcohol consumption, drug use, home safety, eating breakfast, and for women, medical breast examination, pap test, and breast self-examination.

Total possible health practices scores for men and women differ as the index contained three additional questions for women respondents, concerning pap smear, breast examination and breast self-examinations. Comparisons can only be made within sex, for this reason, not between men and women.

As lifestyle practices may be influenced by health knowledge a Health Knowledge Index was also developed by the HPS Technical Committee. This index includes questions regarding respondents' knowledge about blood pressure, smoking, alcohol use and nutrition.

As can be seen in Tables N and O, a healthy lifestyle is related to one's job status. Among both men and women, lower status occupations tend to have lower health practices scores. Consistent with the literature, however, managers do not share equally in healthy lifestyle practices with the other higher status occupations. Six percent of men in management score 7 out of 7 on the health practices index, compared to 14% of professionals. Similarly, 7.6% of women in management score 10 out of 10, compared to 13% of professionals.

Men generally score higher on the knowledge index than do women, with 47% versus 38.2% scoring 6 or 7 out of the possible 7. For both men and women, there is generally an inverse relationship between health knowledge and social status; as lower status occupational groups tend to have less health knowledge.

Workers in the hospitality industries and in the retail trade sector have the least health knowledge. Those sectors reporting higher health knowledge scores include wholesale trade, financial services and agriculture, as shown in Table P.

Low rates of response in some of the categories of the health practices index and high statistical variability make analysis of health practices by industrial sector difficult and incomplete (see Tables Q and R).

Related Research

The finding in the HPS that lower status workers are more likely to smoke has been reported in other studies. Sterling & Weinkam, for example, in the analysis of the smoking behaviour of almost 76,000 American men and women, found highest smoking rates among blue collar workers and lowest rates among professionals, managers and white collar workers.[36] As with Canada's HPS, they found a high percentage of smokers among women in managerial positions as well as clerical positions. This increased likelihood of women in managerial positions to smoke was also reported in another U.S. study.[37]

Despite the persistence of smoking behaviour, many Canadian workers are aware of the health risks posed by smoking. Respondents in the HPS were also asked what they could do to improve their health: "What is the most important thing you should personally do...?" Approximately one in three smokers (35% of smoking men and 31% of smoking women) indicated quitting smoking was the single most important thing they could do to improve their health. Recognition of the importance of quitting was especially pronounced among women in management. Unlike men, women managers are relatively likely to smoke. Of managerial women, 50% indicated smoking cessation to be the single most important thing to do in order to improve personal health -- higher than any other occupational category, regardless of sex.

The relationship between alcohol consumption and socio-economic status observed in the HPS has also been observed in other studies. Cahill & Volicer, for example, cite four studies which found heavier alcohol consumption among those of lower socio-economic status, while only one study reported those at higher status to consume more alcohol.[38]

Blue collar workers in particular report significantly higher levels of drinking than do other occupational groups. Severe job problems due to drinking are found to be more common among blue collar compared to white collar workers. Shift workers have been identified as having more serious drinking problems and alcohol dependency compared with non-shift and part-time workers.[39]

The higher alcohol consumption levels among men compared with women means that occupational or industrial groups with the highest proportion of women workers also have the lowest overall rates of abusive drinking. This was observed in the retail, community services and hospitality sectors.

In a review of the evidence on exercise and health, Haskell, *et. al.* reported that those who are physically active in all age groups exhibit fewer health problems. Both observational and experimental data support the causal role for exercise in both improved fitness and decreased morbidity. Effects of increased physical activity were found to be most dramatic for those who were sedentary and became moderately active.[40]

While men and women are equally as likely to participate in physical conditioning activities, women are less likely than men to be at the recommended level of aerobic fitness.[41] For women, obesity and level of physical

activity are both class-related and age-related. Those women in lower socio-economic classes are more likely to be overweight and are less active. In addition, as women age, they are more likely to become inactive and overweight than are men.[39]

A review of the data from eight national surveys in the U.S. and Canada found younger, higher socio-economic status individuals are more likely to be active in their leisure time.[42] In an examination of Canadian attitudes, sedentary individuals do not rate regular activity as very important for their well-being.[43]

It is clear from the literature that good health practices are more common among those in higher socio-economic groups. Rates of risk-related drinking, smoking, sedentary behaviour, overweight and obesity, are all lower for higher status, higher income groups. There is a small amount of literature that suggests, however, that not all high socio-economic groups share equally in these low rates and that managers may be at higher risk than professionals.[35]

The data from the HPS support the contention that managers engage in poorer health practices than do other high income, high status workers (i.e. professionals). Thus, while managers are "protected" against health risks by their higher income and occupational level, workplace factors may increase the risk when compared with other high status workers.

There is a clear relationship in the research literature and in the HPS between job status, health status and propensity to engage in risk-related behaviours. Reduced health risk from coronary heart disease and its precursors appear to be afforded by larger income, higher occupational status and education.[44] Those in low status, low income occupations engage in higher levels of risk behaviour and are therefore, at higher risk for cardiovascular disease and concomitant illnesses.

Generally, the HPS shows Canadian workers in lower status occupations to exhibit greater health risk behaviours. In addition, workers in certain industrial sectors seem to be especially at risk. It appears from the results of this survey, that health risk behaviours tend to co-vary; that is, workers in certain occupational groupings and industrial sectors appear to be at greater risk for a variety of lifestyle behaviours, including smoking, lack of exercise and risk incurring drinking.

PROGRAM IMPLICATIONS

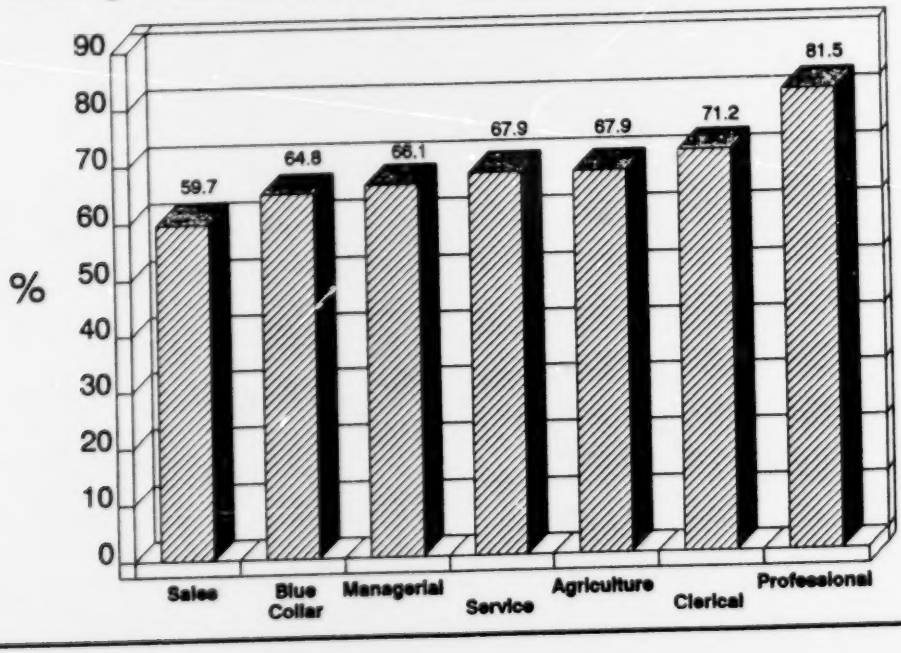
While the HPS was not designed to develop worksite health profiles, evidence from the HPS points to increased health risks in certain occupational and industrial groups and offers some insights into health promotion programming for the Canadian labour force.

Acceptance of Workplace Programs

Canadian workers are indeed concerned about health related issues and receptive to the notion of workplace health promotion. As can be seen in Table S, more than 2/3 of the working population agree that work is an appropriate place to promote good health habits. But, not all workers are equally likely to agree with workplace health promotion (see Figure 1). Of those in management occupations, 29% indicated the workplace was not an appropriate place for health promotion . This finding presents an important challenge to advocates of workplace health promotion, for no matter what target group is selected, the approval and active cooperation of management is likely to be necessary.

Despite the overall acceptance of workplace programs, there are also differences in levels of support by industry (Table T). Workers in the construction, retail and hospitality industries are least likely to agree that work is an appropriate place to promote good health habits, while workers in community services are most likely to sup-

Figure 1. **Work Seen as an Appropriate Place to Promote Health by Occupation, Working Canadians, Age 15+, Canada, 1985**



port workplace health (see Figure 2). These differences may reflect not only acceptance of workplace programs, but also workers' perceptions of the feasibility of offering health promotion in certain industrial settings.

Within the construction sector, for example, respondents were about as likely to respond that the workplace is an appropriate place for health promotion as to respond that it is not. These responses may simply reflect the very real difficulty in providing health promotion in the construction industry. A highly mobile work force and the use of contract labour may present special challenges to those designing programs. These difficulties have also been experienced by those attempting to encourage Employee Assistance Programs for troubled workers.

Content

In planning health promotion programs, the results of the Survey offer guidance as to program content. For example, workers in the transportation and communications sector have been identified as being at health risk due to smoking, alcohol consumption and their lack of cardiovascular fitness (see Figure 3). For these workers, programs which address a broad spectrum of health risk behaviours may be most appropriate.

Differences between men and women, too, suggest the need to tailor workplace programs for the particular labour force. Higher rates of smoking among women managers compared to men, and higher rates of stress

Figure 2. **Work Seen as an Appropriate Place to Promote Health by Selected Industries, Working Canadians, Age 15+, Canada, 1985**

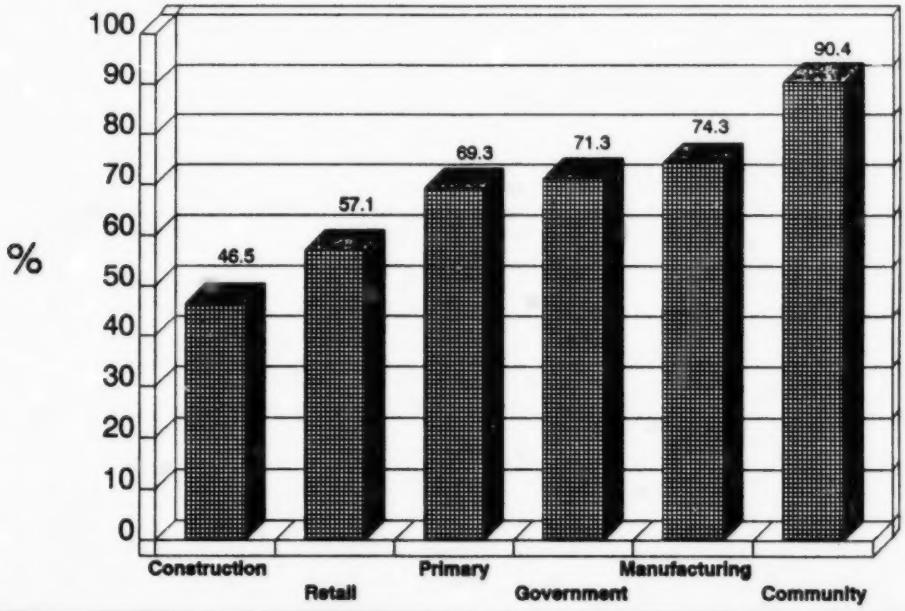


Figure 3. **Health Risk Behaviours of Transportation/Communications Workers, Working Canadians, Age 15+, Canada, 1985**

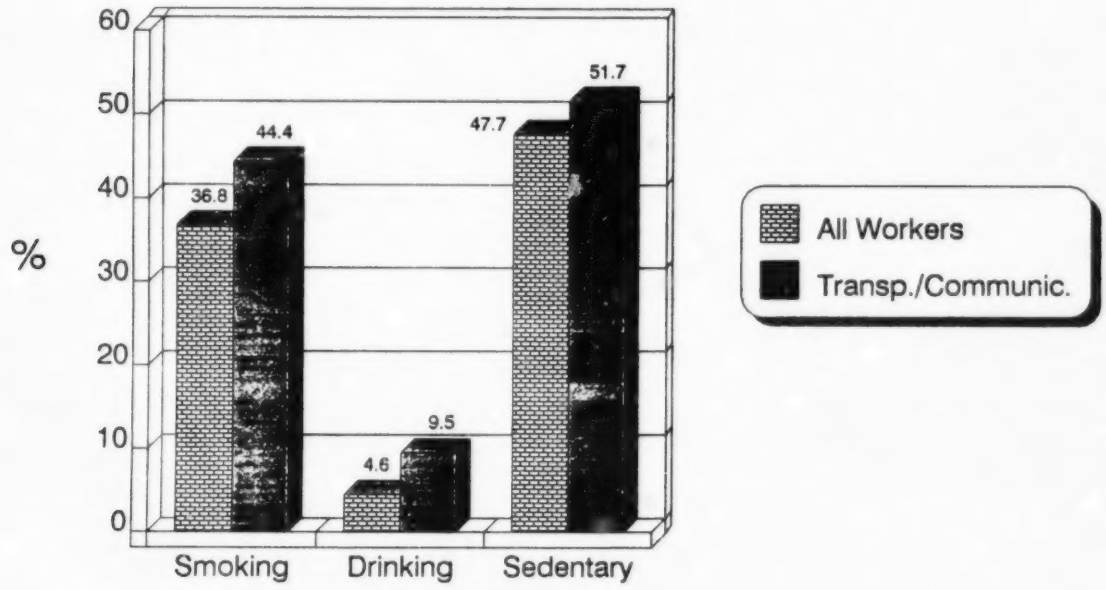
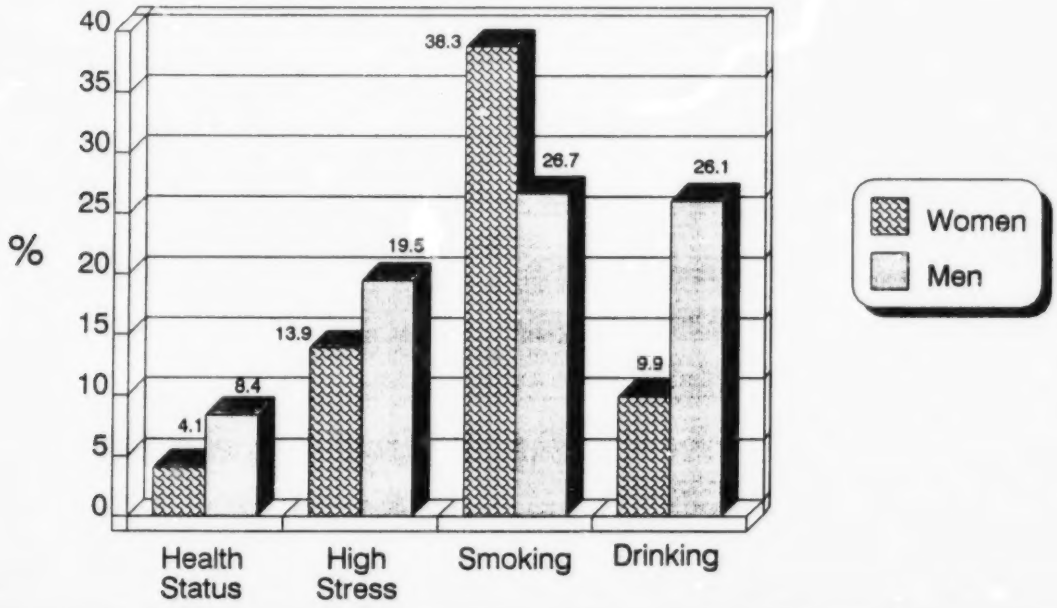


Figure 4. **Health Status, Stress, Smoking and Drinking among Men and Women Managers, Working Canadians, Age 15+, Canada, 1985**

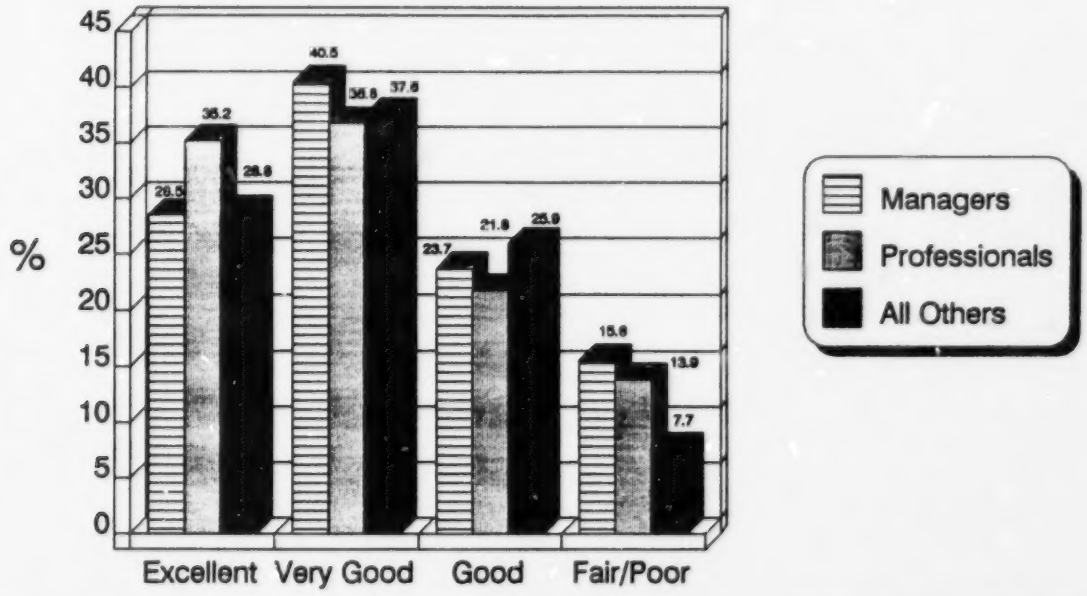


among men in management positions than among women, point to the need to provide programs with content that addresses the specific needs of the target group (see Figure 4).

It may be desirable to vary the structure of programs based on the target work group. The lack of health knowledge of lower status workers may imply a need to have more structured, more didactic programs for these workers. For higher status workers, traits often associated with type A behaviour (e.g. goal achievement and drive) may make programs with individual goal setting and formal feedback to individual participants especially attractive. Higher status workers are somewhat older than the rest of the work force. With age comes greater risk for coronary heart disease and more activity limitation due to chronic conditions. These, too, imply the need for individual goal setting in health promotion programs for this target group. As can be seen in Figure 5, managers and professionals are more likely to have fair/poor health than are other workers, although professionals are especially likely to report excellent health also. This may reflect the higher health status of professionals when adjusted for age differences.

The key to health promotion for male managers may be individual and flexible programs. While these will likely be somewhat higher in cost, the high salaries of managers and the financial consequences of illness or poor work performance among supervisory personnel may well make individualized programs cost-effective.

Figure 5. **Self-Reported Health Status among Managers and Professionals, Working Canadians, Age 15+, Canada, 1985**



For workers in certain industrial sectors, smoking is an even more serious concern as industrial environmental pollutants have been shown to have a synergistic effect with smoking. The growing demand by non-smokers for smoke free work environments will eventually lead to forced reduction in smoking at the worksite. Employers have implemented a variety of incentives to aid smokers to quit. As no controlled outcome evaluations exist, recommendations cannot be made at this time for smoking cessation worksite strategies. It should be noted that there is strong support among Canadian workers for workplace policies to protect the non-smoking worker. Both smokers and non-smokers agree that non-smokers should be provided a smoke free work area. Eighty percent of the Canadian working population and 76% of the smoking workers support a smoke-free workplace for non-smokers. This high level of support for protection of the non-smoking worker should be contrasted with the 50% of the labour force who report working in an environment with no smoking restrictions (see Table U). The general support of non-smoking workplaces should be exploited in developing smoking policies for the workplace.

Employee assistance programs for those identified as problem drinkers have been instituted in many settings. Although success rates have been cited at approximately 60%, these programs have low penetration rates.[45] Given the relatively high success rate of existing employee assistance programs and the work-related problems associated with abusive drinking (e.g. accidents, errors, absenteeism and decreased productivity), efforts should be directed toward earlier identification of problem drinkers.

Blue collar workers have extremely low participation rates and high drop-out rates in health promotion programs.[46, 47, 48] The most successful programs for blue collar workers are hypertension reduction programs. On-site treatment has been found to be most effective in reducing cardiovascular risk when compared to programs which referred workers outside the work setting.[44] Given the high cardiovascular disease risk for this group and the demonstrated success of on-site treatment, this is likely the most feasible and cost-beneficial program to be initiated in industries with large blue collar populations.

"Multiple-risk" programs include a number of health promotion components aimed at promoting "wellness" or healthful lifestyles. This type of program would appear to be highly suited to lower status workers who tend to exhibit a great number of poor health behaviours. The literature refers to several large controlled workplace studies which demonstrated high success rates for weight control, smoking, exercise and stress management.[49, 50] This type of program, however, has been found to be most attractive to women and better educated workers. Special steps in program design should be taken to increase adherence by groups at greatest risk.

Barriers

Some barriers to health promotion have to do with the structure of the workplace. This is the case with construction workers who may move from site to site and even from employer to employer. Other structural barriers may include the difficulty of providing programs to workers who work independently or in very small groups

away from the employers central location. The transportation sector contains some workers in this category. These barriers are especially troublesome in view of the higher rates of health risk behaviours exhibited by workers in these sectors.

It is extremely important that programs reach their intended target. It is clear, for example, that the effects of increased physical activity are most dramatic for those who are sedentary and become moderately active.[38] The problem for those wishing to offer workplace fitness programs is to develop programs which will reach the least fit, who are more likely to be in lower status occupations and within certain industrial settings.

For both sedentary and non-sedentary workers, lack of time due to work demands has been described as the biggest obstacle to increased physical activity.[40] This may imply the need to offer time off work for physical activity, rather than to offer after-hours programs.

Stress reduction programs will have different meanings in different occupational and industrial settings. Job-intrinsic factors such as repetition, high demand, lack of control over pacing have ben identified as sources of blue collar stress.[15,22,23] As these factors relate to the very nature of blue collar work, stress reduction programs *per se* do not seem appropriate for these workers, although recommendations can be made to employers demonstrating the negative health outcomes as a result of these stressors.

For higher status workers, the primary stressor appears to be overwork, mainly defined by the number of hours worked.[16, 27, 28, 29] This presents certain problems in designing health promotion programs. Overworked managers will find it difficult to participate in organized programs. Long hours, inconsistent schedules, and frequent meetings will reduce ability and willingness to participate in programs.

A significant barrier for lower status workers is the cost of participation. Workplace programs which require payment will act to inhibit participation by those at greatest need. Women in lower status, low income occupations, for example, may well find the perceived need to purchase new running shoes or workout clothing to be a disincentive to participation. More importantly, perhaps, after work-hours programs may require child care expenses which act as a further disincentive to participation.

Program Adherence

Evidence from health promotion programs show that workers at the greatest risk are also likely to be the workers who are most difficult to reach in workplace programs.[51, 52, 53] Lack of participation and high drop-outs among participants plague these programs. For example, workplace fitness programs are often reported as reaching those who are already most fit, not the least fit.

The increased health risk among lower-status workers presents economic and attitudinal barriers for workplace health promotion among these workers. Blue collar workers are younger, less educated, and have limited op-

portunities for job advancement. This basic economic instability does not allow for long-term planning. Health promotion, on the contrary, presupposes action taken now for future health gain. T'.is is largely a middle-class perspective. Thus, programs for blue collar workers should focus on immediate benefits as far as possible. Reinforcers such as financial incentives, benefit incentives and time incentives may be highly successful in eliciting participation and increasing program adherence.

While the literature indicates high status workers are those most likely to participate in health promotion programs, this literature very rarely considers differences between managers and other high status workers. The characteristics of the managerial group may make them less likely to participate and more likely to drop-out of health promotion programs.

Drop-outs are more often the smokers, the sedentary, the overweight, those with type A personalities and those who report poor health status. These qualities are all more characteristic of the management group than of professionals. Programs for managers should be carefully designed to elicit participation and adherence. These programs should also recognize the differences between male and female managers observed in the HPS.

Factors which have been identified as increasing program adherence are spouse participation, social support during exercise sessions, proximity and convenience of programs. Studies designed to test the health belief model, showed that among blue collar workers, those who do not consider themselves at elevated health risk are more likely to participate in fitness activity.[54, 55]

Taking these factors into consideration and given the high proportion of sedentary blue collar workers, worksite fitness programs should be located either in close proximity to the workplace or, in cases where "bedroom communities" exist for large industrial populations, programs should be located close to workers' residences. Residential locations have the benefits of removing the worker from the industrial setting which, for lower status workers, may have negative associations, allowing program access to spouses, and utilization of existing community recreational facilities.

As little is known about reasons for continuing physical activity over one's life span, and as amount of physical activity tends to decrease with age, programs should be aimed at those at all levels of physical fitness. This may well necessitate different program regimes for different groups. Lastly, enjoyment has been shown to be a factor contributing to program adherence. Program planners should elicit worker input in selecting the types of fitness activities most attractive to blue collar workers.

In order to meet needs of higher status workers, programs should operate on flexible hours. Managers and professionals must be free to participate on a drop-in basis rather than on a fixed schedule.

A significant barrier to participation by women workers is the frequent double burden of employment and primary responsibility for the home and children. This additional burden is experienced by women in all occupational groups and should be considered in designing workplace programs.

It may be less crucial to develop individualized programs for female managers, for example, than for men. Regularly scheduled programs may ease the burden of household responsibilities such as child care. In addition, women managers are somewhat younger and are at reduced risk for coronary heart disease. Fewer women managers find their lives very stressful, which might indicate they do not work the long hours of their male counterparts. Regularly scheduled group programs may meet the needs of these managers.

To summarize, while the HPS was not designed to be a workplace health promotion survey, it does, nevertheless, suggest several implications for acceptance, content, barriers and adherence for workplace programs in different occupational and industrial groupings.

TABLES

Table A: **Self-Reported Health Status by Occupation, Working Canadians, Age 15+, Canada 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
Population (000's)	**10,414**	**1,389**	**1,820**	**1,657**	**940**	**1,125**	**326**	**3,041**
Health Status								
%excellent	**28.8**	28.5	35.2	29.2	27.3	27.6	31.0	25.8
%very good	**37.6**	40.5	36.8	40.6	42.3	40.8	35.1	33.1
%good	**25.9**	23.7	21.8	23.5	24.2	24.2	25.7	31.1
%fair or poor	**7.7**	15.6	13.9	6.4	10.9	7.4	8.1*	10.1

* high sampling variability

Table B: **Self-Reported Health Status by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agriculture	Primary	Manufacturing	Construction	Transport./ Comm.	Wholesale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospitality
Population (000's)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
Health Status												
%excellent	**28.8**	27.1	22.8	27.3	22.6	24.7	32.8	30.2	29.1	26.2	36.0	28.1
%very good	**37.6**	37.2	41.9	36.7	39.2	32.1	39.1	39.0	38.7	37.7	36.7	39.4
%good	**25.9**	26.9	24.0*	30.1	25.8	31.0	18.7	23.3	28.3	29.2	19.5	25.0
%fair or poor	**7.7**	8.7*	11.4*	6.0	11.9	11.9	9.4*	7.3	3.8	6.9	7.7	7.4*

* high sampling variability
- not releasable

Table C: Distribution of Self-Reported Life Stress and Happiness Levels by Occupation, Working Canadians, Age 15+, Canada, 1985

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
Population (000's)	**10,414**	**1,389**	**1,820**	**1,657**	**940**	**1,125**	**326**	**3,041**
Stress								
%very	**10.9**	18.0	14.1	9.2	10.7	12.3	8.2*	6.5
%fairly	**45.2**	47.3	52.7	39.0	52.1	38.2	44.3	43.8
%not very	**33.9**	25.4	30.5	42.6	26.8	37.9	34.9	35.9
%not at all	**9.5**	8.3	2.6*	9.2	10.4	9.4	12.6*	13.8
Happiness								
%very happy	**43.3**	46.6	51.2	41.8	45.4	41.6	37.3	39.0
%pretty happy	**54.3**	51.3	46.6	57.4	51.5	51.5	61.4	59.3
%not too happy	**2.1**	2.0*	2.1*	-	3.1*	4.8*	-	1.7*

Table D: Distribution of Self-Reported Life Stress and Happiness Levels by Industry; Working Canadians, Age 15+, Canada, 1985

	TOTAL	Agriculture	Pri-mary	Manu-facturing	Con-struction	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
Population (000 s)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
Stress												
%very	**10.9**	8.9*	-	7.0	10.0*	7.4*	14.4	13.0	18.4	10.6	14.1	5.1*
%fairly	**45.2**	43.8	42.6	45.5	44.4	46.5	51.0	45.8	41.0	43.3	48.9	41.2
%not very	**33.9**	37.5	39.2	32.8	34.2	33.8	30.4	29.8	32.7	39.0	32.2	40.2
%not at all	**9.5**	9.7*	-	14.4	11.1*	12.3	-	11.4	7.9	5.9*	4.7*	10.5
Happiness												
%very happy	**43.3**	33.2	37.7	43.0	45.7	39.4	29.7	48.3	44.9	43.6	47.1	41.4
%pretty happy	**54.3**	65.4	61.6	55.9	50.3	59.0	69.7	48.6	54.0	54.2	50.6	51.2
%not too happy	**2.1**	-	-	-	4.0*	-	-	3.1*	-	-	2.2*	4.5*

-not releasable
*high sampling variability

Table E: **Self-Reported Health Status by Occupation and Sex, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
MEN								
Population (000's)	**6,402**	**1,009**	**918**	**378**	**584**	**490**	**269**	**2,667**
Health Status								
%excellent	**27.3**	24.0	31.1	26.8	26.7	33.0	27.3	26.7
%very good	**36.0**	42.5	33.2	45.3	44.3	34.5	39.7	31.5
%good	**28.7**	25.1	30.8	25.0	21.7	24.8	26.3*	31.8
%fair or poor	**8.0**	8.4	4.9	-	7.2*	7.6*	6.6*	10.0
WOMEN								
Population (000's)	**4,012**	**380**	**901**	**1,279**	**357**	**635**	**58**	**374**
Health Status								
%excellent	**31.2**	40.6	39.4	30.0	28.2	23.4	47.9*	19.0
%very good	**40.2**	35.4	40.6	39.3	38.9	45.6	-	44.3
%good	**21.3**	19.9*	39.3	23.1	28.2	23.8	-	25.5
%fair or poor	**7.2**	4.1*	7.4*	7.6	-	7.2*	-	11.1*

* high sampling variability
\- not releasable

Table F: **Distribution of Self-Reported Life Stress and Happiness Levels by Occupation and Sex, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
MEN								
Population (000's)	**6,402**	**1,009**	**918**	**378**	**584**	**490**	**269**	**2,667**
Stress								
%very	**11.3**	19.5	15.2	6.7*	12.4	16.5	9.0*	6.4
%fairly	**45.5**	46.0	53.8	37.1	55.3	43.4	47.5	41.6
%not very	**32.6**	25.0	28.9	39.1	25.3	31.1	35.4	37.5
%not at all	**10.4**	8.5	-	17.1	7.0*	8.8*	8.1*	14.4
Happiness								
%very happy	**42.5**	46.3	52.4	40.1	34.4	44.9	36.1	40.3
%pretty happy	**55.5**	52.7	45.5	59.6	61.9	50.7	62.5	58.0
%not too happy	**1.9**	-	-	-	-	-	-	1.7*
WOMEN								
Population (000's)	**4,012**	**380**	**901**	**1,279**	**357**	**635**	**58**	**374**
Stress								
%very	**10.3**	13.9	12.9	9.9	7.8*	9.1*	-	6.8*
%fairly	**44.9**	50.5	51.6	39.6	46.9	34.2	-	59.4
%not very	**36.0**	26.5	32.2	43.6	29.3	43.1	32.5*	24.1
%not at all	**8.1**	7.8	3.2*	6.9	16.0	9.8*	33.2*	9.6*
Happiness								
%very happy	**44.6**	47.5	50.0	42.4	63.4	39.1	42.8*	30.8
%pretty happy	**52.3**	47.5	47.7	56.7	34.5	52.0	56.1*	68.4
%not too happy	**2.4**	4.9*	-	-	-	5.2*	-	-

* high sampling variability
\- not releasable

***Table G:* Self-Reported Health Status by Industry and Sex, Working Canadians, Age 15+, Canada,1985**

	TOTAL	Agriculture	Primary	Manufacturing	Construction	Transport./ Comm.	Wholesale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospitality
MEN												
Population (000's)	**6,402**	**259**	**168**	**1,447**	**523**	**831**	**317**	**572**	**627**	**660**	**592**	**293**
Health Status												
%excellent	**27.3**	25.3*	23.9*	27.6	23.6	25.3	30.6	30.2	30.2	22.3	29.9	36.0
%very good	**36.0**	40.9	41.2	35.0	34.9	29.8	43.3	40.6	30.9	37.5	32.8	41.7
%good	**28.7**	26.8*	21.9*	31.4	27.4	31.6	21.7*	22.5	34.3	32.6	29.1	16.4*
%fair or poor	**15.8**	7.0*	12.9*	6.1	14.1*	13.4	–	6.7*	4.6*	7.6*	8.2*	-
WOMEN												
Population (000's)	**4,012**	**47**	**28**	**430**	**81**	**180**	**119**	**627**	**498**	**270**	**1,095**	**579**
Health Status												
%excellent	**31.2**	36.7*	-	26.1	-	22.3*	38.9*	30.3	27.8	35.7	39.4	24.1
%very good	**40.2**	-	-	42.3	67.4	43.0	28.0*	37.6	48.6	38.3	38.7	38.2
%good	**21.3**	-	-	25.8	-	28.5*	-	24.1	20.6	20.8*	14.4	29.4
%fair or poor	**7.2**	-	-	5.7*	-	5.2*	22.4*	8.0*	-	5.2*	7.5	8.0*

* high sampling variability
\- not releasable

Table H: **Distribution of Self-Reported Life Stress and Happiness Levels among Men by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agriculture	Primary	Manufacturing	Construction	Transport./ Comm.	Wholesale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospitality
MEN												
Population (000's)	**6,402**	**259**	**168**	**1,447**	**523**	**831**	**317**	**572**	**627**	**660**	**592**	**293**
Stress												
%very	**11.3**	9.1*	-	8.3	10.5*	7.2*	11.8*	10.8*	25.7	10.0*	16.9	-
%fairly	**45.5**	43.1	41.6	44.3	41.6	44.0	55.4	52.1	39.5	42.9	51.6	51.3
%not very	**32.6**	37.8	39.7	31.6	37.1	35.0	29.0	28.4	27.0	39.2	25.6	33.2
%not at all	**10.4**	10.0*	-	15.8	10.5*	13.8	-	8.7*	7.7*	6.5*	5.8*	9.5*
Happiness												
%very happy	**42.5**	35.4	36.0	44.3	49.3	40.1	30.3	39.0	43.3	45.2	47.3	34.6
%pretty happy	**55.5**	63.2	63.1	54.5	46.1	58.7	69.2	58.0	55.8	53.4	49.1	61.1
%not too happy	**1.9**	-	-	-	4.6*	-	-	-	-	-	-	-
WOMEN												
Population (000's)	**4,012**	**47**	**28**	**430**	**81**	**180**	**119**	**627**	**498**	**270**	**1,095**	**579**
Stress												
%very	**10.3**	-	-	-	-	-	21.4*	15.1	9.2*	12.3*	12.6	4.8*
%fairly	**44.9**	47.6*	48.1*	49.5	62.7	57.7	39.2*	40.1	42.9	44.5	47.5	36.2
%not very	**36.0**	-	-	36.9	-	28.2*	34.0*	31.0	39.8	38.6	35.7	43.7
%not at all	**8.1**	-	-	9.6*	-	-	-	13.8*	8.1*	-	4.1*	11.1*
Happiness												
%very happy	**44.6**	-	47.2*	38.5	22.2*	36.4	28.1*	56.8	46.8	39.7	46.9	44.9
%pretty happy	**52.3**	77.2	52.8*	60.4	77.5	60.0	71.1	39.9	51.6	56.1	51.5	46.2
%not too happy	**2.4**	-	–	-	-	-	-	-	-	-	-	4.7*

*high sampling variability
- not releasable
– nil or zero

Table I: **Activity Limitations and Limitations at Work among Working Canadians, Age 15+, Canada, 1985.**

	Percentage	
	Working Men	**Working Women**
Activity limitation	10.0	13.0
Limitation at work	3.5	5.3
Limitation but did not state if it affects work	2.4	2.5

Table J: **Distribution of Risk-Related Behaviours: Smoking, 4+ Drinks at Least Once a Week and Exercise by Occupation, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
POPULATION (000's)	**10,414**	**1,389**	**1,820**	**1,657**	**940**	**1,125**	**326**	**3,041**
Smoking								
%yes	**36.8**	29.9	27.2	36.3	34.3	42.1	28.6	45.6
Risk Drinking								
%at least once per week	**18.4**	21.7	10.6	14.8	16.8	15.2	15.1	25.4
%once a week	**8.9**	10.3*	5.9*	7.9	9.4	7.7	8.3*	10.9
%twice weekly	**4.9**	4.3*	1.9*	2.7*	5.1*	4.6*	-	8.5
%three+ weekly	**4.6**	7.1*	2.8*	4.2*	2.9*	-	-	6.0
Exercise								
%once or twice/week	**20.2**	22.4	21.5	21.8	21.1	17.6	9.1*	18.2
%less than once/week	**27.1**	28.9	20.4	27.5	31.3	26.4	33.2	28.8
%sedentary risk	**47.3**	51.3	41.9	49.3	52.4	44.0	42.3	47.0

* high sampling variability
\- not releasable

Table K: **Distribution of Risk-Related Behaviours: Smoking, 4+ Drinks at Least Once Weekly and Exercise by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
Population (000's)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
Smoking												
%yes	**36.8**	21.6	41.3	43.5	43.0	44.4	35.8	32.9	28.3	29.7	31.5	48.4
Risk Drinking												
%at least once/week	**18.4**	15.8	32.0	21.2	32.0	24.5	20.3	16.4	18.1	20.1	8.3	14.0
%once/week	**8.9**	9.4*	16.3*	10.1	12.4*	9.3	12.5*	9.1*	8.9	9.3	5.6	5.4*
%twice/week	**4.9**	-	-	6.5	14.3	5.7*	-	3.6*	4.6*	5.2*	1.3*	4.0*
%three+/week	**4.6**	-	-	4.6	5.3*	9.5	-	3.7*	4.6*	5.6*	1.4*	4.6*
Exercise												
%1 or 2/week	**20.2**	9.1*	12.4*	23.0	23.6	19.1	12.4*	15.7	25.9	21.1	21.4	17.1
% less than 1/week	**27.0**	33.2	27.2*	28.1	24.2	32.6	32.8	28.5	29.1	19.5	25.8	17.6
%sedentary risk	**47.2**	42.3	39.6	51.1	47.8	51.7	45.2	44.2	55.0	40.6	47.2	34.7

* high sampling variability
\- not releasable

Table L: **Distribution of Risk-Related Behaviours: Smoking, 4+ Drinks at Least Once a Week and Exercise by Occupation and Sex, Working Canadians, Age 15+, Canada 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
MEN								
Population (000's)	**6,402**	**1,009**	**918**	**378**	**584**	**490**	**269**	**2,667**
Smoking								
%yes	**37.4**	26.7	29.5	34.5	35.0	39.6	22.5*	46.2
Risk Drinking								
%at least once per week	**23.8**	26.1	17.4	25.4	24.8	18.8	17.5	26.5
%once per week	**10.9**	12.1	8.9*	8.0	14.3	9.8*	9.1*	11.4
%twice per week	**6.4**	4.8*	3.0*	7.7	7.9	4.5*	-	8.4
%3+ per week	**6.5**	9.2	5.5*	9.7	2.6	4.5*	-	6.7
Exercise								
%1 or 2/week	**20.9**	24.9	22.1	32.6	18.9	17.7	11.0*	18.3
%less than 1/week	**26.7**	29.4	15.6	26.6	31.9	25.0	34.4	28.4
%sedentary risk	**47.6**	54.3	37.7	59.2	50.8	42.7	45.4	46.7
WOMEN								
Population (000's)	**4,012**	**380**	**901**	**1,279**	**357**	**635**	**58**	**374**
Smoking								
%yes	**35.8**	38.3	24.9	36.8	33.1	44.0	56.8	40.6
Risk Drinking								
%at least once per week	**9.7**	9.9	3.5*	11.5	4.1*	12.5*	-	17.3*
%once per week	**5.7**	5.6*	2.7*	7.9	-	6.1*	-	7.3*
%twice per week	**2.5**	-	-	-	-	4.7*	-	8.9*
%three+ per week	**1.5***	-	-	-	-	2.4*	-	-
Exercise								
%1 or 2 week	**19.1**	15.6	20.9	18.7	24.7	17.5	--	17.1*
%less than 1/week	**27.7**	27.6	25.3	27.8	30.3	27.5	-	32.2
%sedentary risk	**46.8**	43.1	46.1	46.4	55.0	45.0	-	49.2

* high sampling variability
– nil or zero
- not releasable

Table M: **Distribution of Risk-Related Behaviours: Smoking, 4+ Drinks at Least Once a Week and Exercise by Industry and Sex, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
MEN												
Population (000's)	**6,402**	**259**	**168**	**1,447**	**523**	**831**	**317**	**572**	**627**	**660**	**592**	**293**
Smoking												
%yes	**37.3**	19.5*	40.4	43.1	42.1	44.9	31.8	34.8	22.1	30.4	39.6	52.3
Risk Drinking												
%at least 1/week	**23.8**	16.2*	31.9*	24.6	29.5	27.2	21.7	28.2	26.8	24.7	12.8	14.7*
%once/week	**10.9**	8.7*	16.2*	10.8	11.7*	9.2*	12.6*	16.3	12.1*	11.0*	8.4*	-
%twice/week	**6.4**	-	-	7.9	11.7*	6.9*	-	7.0*	7.1*	5.6*	-	-
%three+/week	**6.5**	-	-	5.9	6.1*	11.1	-	4.9*	7.6*	8.1*	-	-
Exercise												
%1 or 2/week	**20.9**	-	10.6	24.1	27.1	20.7	13.7*	16.3	26.6	19.2	22.3	13.5*
%less than 1/week	**26.7**	33.2	28.1	24.5	26.1	33.2	41.3	27.0	25.4	20.2	19.2	21.8
%sedentary risk	**47.6**	43.8	39.4	48.6	53.1	53.9	55.0	43.3	52.0	39.4	41.5	35.3
WOMEN												
Population (000's)	**4,012**	**47**	**28**	**430**	**81**	**180**	**119**	**627**	**498**	**270**	**1,095**	**579**
Smoking												
%yes	**35.8**	33.0*	-	44.7	49.2*	42.1	46.3	31.3	36.1	28.0	27.5	46.4
Risk Drinking												
%at least 1/week	**9.7**	-	-	10.7*	49.2*	-	-	13.9	7.0*	11.0*	5.7*	13.5
%once/week	**5.7**	-	-	7.6*	-	-	-	-	4.8*	-	4.1*	5.0*
%twice/week	**2.5**	–	-	-	-	-	-	4.3*	-	-	-	4.9*
%three+/week	**1.5**	–	-	-	-	-	-	-	-	-	-	-
Exercise												
%1 or 2/week	**19.1**	-	-	19.3	-	11.8*	-	15.2	25.0	25.7*	20.9	18.9
%less than 1/week	**27.7**	33.3*	-	40.5	-	29.6	-	29.8	34.2	17.7*	29.5	15.5
%sedentary risk	**46.8**	34.4*	-	59.8	-	41.4	19.3*	45.0	59.2	43.4	50.4	34.4

* high sampling variability
– nil or zero
- not releasable

Table N: **Knowledge of Health-Related Topics and Health Practices Indices among Men by Occupation, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
MEN								
Population (000's)	**6,402**	**1,009**	**918**	**378**	**584**	**490**	**269**	**2,667**
Knowledge Index								
%zero to three	**13.4**	10.5	3.3*	10.1*	11.9*	19.1	18.9*	16.7
%four	**14.2**	6.4*	10.9	17.4*	6.3*	12.3*	14.6*	19.3
%five	**25.3**	23.5	21.5	25.7	27.6	18.7	25.0*	28.3
%six	**31.2**	40.3	43.1	28.4	34.2	36.8	20.9*	24.0
%seven	**15.8**	19.4	21.1	18.5*	19.9	13.2*	20.4*	11.7
Health Practices Index								
%zero	-	-	–	-	–	–	–	-
%one	-	-	-	–	-	-	-	-
%two	**4.4**	-	8.8	-	-	-	-	5.0
%three	**10.1**	8.0	9.6	-	8.7*	22.4	-	10.5
%four	**19.3**	20.2	9.4	22.4	11.7*	18.1	17.4*	23.6
%five	**28.5**	26.4	28.7	42.2	38.4	21.8	25.2*	26.4
%six	**25.5**	30.1	36.8	13.6*	22.7	16.1	35.3	23.0
%seven	**11.6**	6.3*	13.9	13.0*	13.3*	20.4	9.8*	11.0

* high sampling variability
– nil or zero
- not releasable

Table O: **Knowledge of Health-Related Topics and Health Practices Indices among Women by Occupation, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
WOMEN								
Population (000's)	**4,012**	**380**	**901**	**1,279**	**357**	**635**	**58**	**374**
Knowledge Index								
%zero to three	13.2	6.2*	5.2*	11.4	18.3*	23.0	-	25.2
%four	17.0	13.5	7.6*	21.9	20.7*	16.3	13.7*	19.5*
%five	31.4	38.8	37.4	28.6	27.0	33.8	6.5*	24.6
%six	29.7	31.0	37.4	27.4	24.4	23.3	70.4	27.8
%seven	8.6	10.4*	10.4	10.7	9.7*	3.5*	4.5*	2.9
Health Practices Index								
%zero	–	–	–	–	–	–	–	–
%one	-	–	–	-	–	–	–	-
%two	-	-	-	-	-	-	-	5.7*
%three	1.7*	-	-	-	-	3.5*	–	6.9*
%four	3.7	-	-	1.9*	11.5*	7.4*	-	-
%five	8.5	7.5*	6.1*	8.9	6.2*	13.0	-	8.2*
%six	14.0	16.2*	12.1	16.0	13.8*	9.4*	-	14.1*
%seven	19.5	22.9	16.4	17.9	24.9	24.0	-	16.3*
%eight	28.1	31.9	28.8	29.9	25.3	27.1	42.5*	19.1
%nine	15.9	9.8*	22.0	13.9	13.7*	13.4	-	23.1
%ten	7.8	7.6*	13.1	9.7	-	-	–	-

* high sampling variability
\- not releasable
– nil or zero

***Table P:* Knowledge of Health-Related Topics by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
Population (000's)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
%zero to three	13.3	15.7*	-	14.8	14.9	16.5	14.9	13.2	11.0	10.6	6.6	23.8
%four	15.3	15.9*	20.3*	15.7	20.3	16.8	15.0	16.3	11.4	15.7	13.7	12.6
%five	27.6	24.8	37.5	30.1	21.1	19.7	32.7	30.4	29.4	25.8	29.6	27.0
%six	30.7	26.0	27.2*	25.3	31.6	36.1	19.4	30.6	30.5	33.4	35.9	28.3
%seven	13.0	17.5*	-	14.0	12.0	10.8	17.8	9.4	17.7	14.4	14.2	8.3

* high sampling variability
- not releasable

***Table Q:* Health Practices Index for Men by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-Port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
MEN												
Population (000's)	**6,402**	**259**	**168**	**1,447**	**523**	**831**	**317**	**572**	**627**	**660**	**592**	**293**
Health Practices Index												
%zero	-	–	-	-	-	–	-	-	–	–	–	–
%one	-	-	–	-	-	-	-	-	-	–	-	-
%two	4.4	-	-	6.3	9.3*	-	-	7.3*	4.6*	7.7*	-	-
%three	10.1	-	-	10.6	8.0*	6.6*	15.5*	6.3*	11.9*	12.5*	10.9*	19.2*
%four	19.3	14.9*	16.4*	20.4	24.5	28.7	16.9*	16.8	14.8	19.9	9.3*	16.2*
%five	28.5	26.6	28.4*	25.0	29.8	30.6	36.2	33.1	26.3	24.2	31.6	35.4
%six	25.5	37.2	27.7*	25.3	14.0*	22.5	16.7*	23.6	32.1	27.5	32.4	16.3*
%seven	11.6	9.8*	-	11.9	13.0*	8.9*	11.9*	11.6*	9.9*	15.1	14.4	9.0*

* high sampling variability
- not releasable
– nil or zero

Table R: **Health Practices Index for Women by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-Port./ Comm.	Whole-sale	Retail	Finance	Govt. Serv.	Commun. Serv.	Hospit-ality
WOMEN												
Population (000's)	**4,012**	**47**	**28**	**430**	**81**	**180**	**119**	**627**	**498**	**270**	**1,095**	**579**
Health Practices Index												
%zero	--	--	--	--	--	--	--	--	--	--	--	--
%one	-	--	--	--	--	--	--	-	--	-	--	--
%two	-	--	--	-	27.9*	-	-	--	-	-	-	--
%three	**1.7***	--	-	-	-	--	-	-	-	-	-	-
%four	**3.7**	-	-	-	-	-	-	6.1*	-	-	-	6.8*
%five	**8.5**	-	-	12.2*	-	-	-	5.1*	9.4*	-	7.5*	11.3*
%six	**14.0**	31.7*	-	21.6	-	17.0*	21.1	13.2	10.3*	11.9*	12.5	11.8*
%seven	**19.5**	-	-	15.1*	-	21.6*	12.5*	22.5	17.8	22.7	19.8	20.8
%eight	**28.1**	18.8*	-	17.8	-	26.6*	31.0*	34.1	38.1	29.2	25.3	29.5
%nine	**15.9**	-	-	22.1	-	16.1*	22.9*	11.8*	12.4*	12.0*	20.0	13.4*
%ten	**7.8**	--	-	6.6*	-	-	-	5.5*	6.7*	10.9*	12.1	-

* high sampling variability
-- nil or zero
- not releasable

Table S: **"Is Work an Appropriate Place to Promote Good Health Habits..." by Occupation, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Managerial	Professional	Clerical	Sales	Service	Agriculture	Blue Collar
Population (000's)	**10,414**	**1,389**	**1,820**	**1,657**	**940**	**1,125**	**326**	**3,041**
%yes	**68.7**	66.1	81.5	71.2	59.7	67.9	67.9	64.8
%no	**23.9**	28.9	14.5	21.8	35.3	22.6	19.3*	26.6

* high sampling variability

Table T: **"Is Work an Appropriate Place to Promote Good Health Habits..." by Industry, Working Canadians, Age 15+, Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-factur-ing	Con-struc-tion	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
Population (000's)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
%yes	**68.7**	69.7	69.3	74.3	46.5	68.3	69.9	57.1	62.1	71.3	90.4	57.1
%no	**23.9**	18.7*	22.7*	19.8	45.8	22.7	23.0	35.0	27.9	22.8	7.3	32.2

* high sampling variability

Table U: **Smoking Restrictions, Habits and Opinions, by Industry, Working Canadians, Age 15+ Canada, 1985**

	TOTAL	Agri-culture	Pri-mary	Manu-facturing	Con-struction	Trans-port./ Comm.	Whole-sale	Retail	Finance	Gov't. Serv.	Commun. Serv.	Hospit-ality
Population (000's)	**10,414**	**307**	**196**	**1,877**	**604**	**1,011**	**436**	**1,199**	**1,125**	**930**	**1,687**	**872**
Non-smokers should be provided a smoke free work area												
%agree	**80.0**	69.3	79.1	77.2	73.6	75.7	77.7	85.1	79.0	81.9	90.5	73.5
%disagree	**15.0**	17.9	16.6*	19.4	20.8	18.2	18.4	16.8	17.1	15.5	7.0	12.7
Do you feel unpleasant from the cigarette smoke of others												
%yes	**66.2**	62.5	62.8	62.1	54.0	62.0	67.0	71.4	67.1	65.7	77.1	60.9
%no	**33.5**	37.5	37.2	37.7	46.0	37.9	32.9	28.5	32.8	34.2	22.8	36.4
Is smoking restricted at work												
%completely	**7.0**	7.4*	-	7.8	3.8*	-	8.7*	12.6	5.3*	4.1*	10.9	5.2*
%certain places	**40.6**	20.0	29.2	49.8	14.8	47.6	33.1	39.5	29.0	33.6	65.1	19.9
%not at all	**50.1**	65.0	65.7	40.8	78.3	49.8	57.0	47.7	64.4	61.6	23.6	66.5

- not releasable
* high sampling variability

ENDNOTES

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APPENDIX I

HEALTH PROMOTION SURVEY QUESTIONNAIRE

Statistics Canada Statistique Canada

HEALTH PROMOTION SURVEY

Telephone Number

Hrd Page - Line No.

First I would like to ask you a few questions about your health.

1. **In general, compared to other persons your age would you say your health is...**

   1 ○ Excellent
   2 ○ Very good
   3 ○ Good
   4 ○ Fair
   5 ○ Poor

2. **Do you agree or disagree with the following statement? Compared to most people my age I make more of an effort to improve my health.**

   6 ○ Agree
   7 ○ Disagree
   8 ○ No opinion

3. **Do you think there is anything you personally should do to improve your physical health?**

   1 ○ Yes 2 ○ No ——→ Go to 6

4. **What is the most important thing you personally should do?**

   3 ○ Exercise more
   4 ○ Improve eating habits
   5 ○ Lose weight
   6 ○ Stop smoking
   7 ○ Reduce drug use/medications
   8 ○ Cut down on drinking
   9 ○ Other (specify) _____

5. **Is there anything stopping you from making this improvement? (Mark all that apply)**

   01 ○ No
   02 ○ Problem not serious, no urgency
   03 ○ Lack of time
   04 ○ Lack of self discipline, energy
   05 ○ Too depressed
   06 ○ Don't know how to get started, lack knowledge
   07 ○ Peer pressure
   08 ○ Lack of support from family or friends
   09 ○ Don't want to change current habits
   10 ○ Too difficult
   11 ○ Too costly
   12 ○ Other (specify) _____

6. **Do you think there is anything you personally should do to improve the way you cope with stress?**

   1 ○ Yes 2 ○ No ——→ Go to 9

7. **What is the most important thing you think you should do? (Mark only most important)**

   1 ○ Exercise more
   2 ○ Learn to relax, worry less
   3 ○ Get out more often, make new friends, socialize
   4 ○ Change jobs, move, leave home, change situation
   5 ○ Reduce drug use/medications
   6 ○ Reduce alcohol use
   7 ○ Spend more time with family and close friends
   8 ○ Other (specify) _____

8. **Is there anything stopping you from making this improvement?**

   01 ○ No
   02 ○ Problem not serious, no urgency
   03 ○ Lack of time
   04 ○ Lack of self discipline, energy
   05 ○ Too depressed
   06 ○ Don't know how to get started, lack knowledge
   07 ○ Peer pressure
   08 ○ Lack of support from family or friends
   09 ○ Don't want to change current habits
   10 ○ Too difficult
   11 ○ Too costly
   12 ○ Other (specify) _____

9. **In general would you say you're...**

   1 ○ Very happy
   2 ○ Pretty happy
   3 ○ Not too happy

10. **Would you describe your life as...**

    4 ○ Very stressful
    5 ○ Fairly stressful
    6 ○ Not very stressful
    7 ○ Not at all stressful

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11. Are there health topics about which you feel you need more information?

[8] ○ Yes [9] ○ No ——→ Go to 13

12. On which of the following health topics do you feel you need more information?

	Yes	No
Nutrition	01 ○	02 ○
High blood pressure	03 ○	04 ○
Mental health	05 ○	06 ○
Smoking	07 ○	08 ○
Alcohol	09 ○	10 ○
Marijuana	11 ○	12 ○
Safety and accident prevention	13 ○	14 ○

The next few questions are about your current physical condition.

13. How tall are you without shoes?

[1] [ ] [ ] feet / inches or [2] [ ] [ ] [ ] centimetres

14. How much do you weigh?

[3] [ ] [ ] [ ] pounds or [4] [ ] [ ] [ ] kilograms

15. How much would you like to weigh?

[5] [ ] [ ] [ ] pounds or [6] [ ] [ ] [ ] kilograms

[7] ○ Don't know

16. Are you limited in the kind or amount of activity you can do because of a long term physical condition or health problem? By long term I mean a condition that has lasted or is expected to last more than 6 months.

[1] ○ Yes [2] ○ No ——→ Go to 18

17. Are your activities limited ...

	Yes	No
At home	[3] ○	[4] ○
At work or school	[5] ○	[6] ○
In other activities such as leisure time pursuits or transportation to or from work	[7] ○	[8] ○

18. When did you last have your blood pressure checked?

[1] ○ Last 6 months
[2] ○ 6-12 months
[3] ○ One to two years
[4] ○ More than 2 years
[5] ○ Never
[6] ○ Don't know } Go to 22

19. As far as you know is your blood pressure high?

[7] ○ Yes
[8] ○ No
[9] ○ Don't know } Go to 22

20. Are you currently doing anything to control your blood pressure?

[1] ○ Yes [2] ○ No ——→ Go to 22

21. What are you doing? (Mark all that apply)

01 ○ Medication
02 ○ Quit smoking
03 ○ Exercise
04 ○ Weight loss
05 ○ Sodium restriction
06 ○ Other diet change
07 ○ Relaxation
08 ○ Reduce alcohol use
09 ○ Other (specify) _____
10 ○ Don't know

22. Do you agree or disagree with the following statement? You only need to have your blood pressure checked if you think you have a problem.

[1] ○ Agree
[2] ○ Disagree
[3] ○ No opinion

The next few questions are about exercise.

23. Exercise includes vigorous activities such as calisthenics, jogging, racquet sports, team sports, dance classes, or brisk walking. Do you feel you get as much exercise as you need or less than you need?

[4] ○ As much as needed
[5] ○ Less than needed
[6] ○ Don't know

24. How many times per week do you exercise for at least 15 minutes?

[1] ○ Daily
[2] ○ 5-6 times a week
[3] ○ 3-4 times a week
[4] ○ 1-2 times a week
[5] ○ Less than once a week
[6] ○ Never
[7] ○ Don't know

25. Would you say you are physically more active, about the same or less active than other persons your age?

[1] ○ More active
[2] ○ About the same
[3] ○ Less active
[4] ○ Don't know

26. Do you think that getting more exercise would improve your health...

[5] A great deal
[6] A moderate amount
[7] A little
[8] Not at all
[9] Don't know

The next few questions are about smoking.

27. At the present time do you smoke cigarettes?

[1] Yes [2] No ——→ Go to 31

28. Do you smoke cigarettes regularly, that is usually everyday or occasionally, not every day?

[3] Regularly [4] Occasionally

29. In the past year has anyone asked you to not smoke around them?

[5] Yes [6] No ——→ Go to 31

30. Where has this happened? Anywhere else? (Mark all that apply)

[1] At school
[2] At work
[3] In a car
[4] Restaurant
[5] In your own home
[6] In a house other than your own
[7] Other (specify) _____

31. Now I'd like your opinion on some statements about smoking. Tell me whether you agree or disagree with each of the following?

	Agree	Dis-agree	No opinion
Children are more likely to start smoking if their parents smoke	[01]	[02]	[03]
People are too concerned about the effect on their health of other people smoking	[04]	[05]	[06]
Most non-smokers don't mind when people smoke in their presence	[07]	[08]	[09]
Women should not smoke during pregnancy	[10]	[11]	[12]
Non-smokers should be provided with a smoke-free area where they work	[13]	[14]	[15]
Smokers should ask permission before smoking in the presence of others	[16]	[17]	[18]
Smoking helps you stay slim	[19]	[20]	[21]

32. Do you think that a person who quits after ten years of heavy smoking reduces the risk of getting a disease related to smoking...

[1] A great deal
[2] A moderate amount
[3] A little bit
[4] Not at all
[5] Don't know

33. Do you ever feel unpleasant effects from the cigarette smoke of others?

[6] Yes [7] No

34. Have you ever asked someone not to smoke?

[8] Yes [9] No ——→ Go to 36

35. Where was that? Anywhere else? (Mark all that apply)

[1] In restaurant
[2] At work
[3] At school
[4] In a car
[5] Public transportation (bus, airplane)
[6] In your own home
[7] In a house other than your own
[8] Other (specify) _____

Now I would like to ask some questions about alcohol consumption.

36. In the next questions when we use the word drink it means:

One bottle of beer or glass of draft
One small glass of wine
One shot or mixed drink with hard liquor

Have you ever taken a drink of beer, wine, liquor or other alcoholic beverage?

[1] Yes [2] No ——→ Go to 44

37. In the past 12 months, have you taken a drink of beer, wine, liquor or other alcoholic beverage?

[3] Yes [4] No ——→ Go to 44

38. During the past 12 months, how often, on average, did you drink alcoholic beverages? Was it...

[1] Every day
[2] 4-6 times a week
[3] 2-3 times a week
[4] Once a week
[5] Once or twice a month
[6] Less often than once a month

39. (a) Thinking back over the past 7 days, on how many of these days did you have any alcoholic drinks?

☐ [5]○ None ——→ Go to 40

(b) On how many of these days did you have 2 or more drinks?

☐ [5]○ None ——→ Go to 40

(c) On how many of these days did you have 4 or more drinks?

☐ [5]○ None ——→ Go to 40

(d) On how many of these days did you have 8 or more drinks?

☐ [5]○ None ——→ Go to 40

(e) On how many of these days did you have 12 or more drinks?

☐ [5]○ None

40. Would you say that this is more, less or about the same amount that you usually consume during a week?

[1]○ More

[2]○ Less

[3]○ Same

41. During the past month how many times have you driven within two hours after drinking any amount of alcohol?

☐.

[88]○ Don't drive ——→ Go to 44

[99]○ Don't know

42. About how many drinks can you have, over a 3 hour period, before you would worry about your ability to drive?

☐.

[99]○ Don't know

43. There is a legal limit to the amount of alcohol you can have in your blood when driving. How many drinks do you think you can have over a period of three hours before you are over the legal limit?

☐.

[99]○ Don't know

44. In the past 12 months, have you been with a friend or relative whom you thought had too much to drink to drive safely?

[5]○ Yes

[6]○ No

[7]○ Don't know } Go to 47

45. On the most recent occasion did you attempt to prevent this person from driving?

[5]○ Yes [9]○ No ——→ Go to 47

46. What did you do? (Mark all that apply)

[1]○ Drove them home yourself

[2]○ Asked someone to drive them home

[3]○ Asked them to take a taxi

[4]○ Hid their car keys

[5]○ Served coffee

[6]○ Kept the person at your home

[7]○ Other (specify) _____

47. How many drinks do you think a person can have per week, without endangering his/her health over the long term?

☐.

[99]○ Don't know

48. Now I'd like your opinion on some statements about drinking. Please tell me, whether you agree or disagree?

	Agree	Dis-agree	No opinion
Moderate drinking can be good for your health	[01]○	[02]○	[03]○
On social occasions I often feel obligated to have a drink, even when I would rather not	[04]○	[05]○	[06]○
Most drinkers do not suffer health problems as a result of their drinking	[07]○	[08]○	[09]○
Most people don't mind if you get intoxicated once in a while	[10]○	[11]○	[12]○
I'd rather pay for a taxi than see a friend drive after drinking	[13]○	[14]○	[15]○

Now I would like to ask about your use of drugs.

49. In the past 12 months have you used:

Sleeping pills?	[01]○	Yes
	[02]○	No
Pep pills, stimulants?	[03]○	Yes
	[04]○	No
Tranquilizers such as valium?	[05]○	Yes
	[06]○	No
Cocaine?	[07]○	Yes
	[08]○	No
Marijuana or hashish?	[09]○	Yes
	[10]○	No

50. Do you think that occasional use of marijuana will affect a persons' physical or mental health?

[4]○ Yes

[5]○ No

[6]○ Don't know } Go to 52

51. What effects do you think it would have? (Mark all that apply)

- 01 ○ Relaxation or other positive effects
- 02 ○ Addiction/leads to harder drugs
- 03 ○ Memory loss, brain damage
- 04 ○ Other mental or behavioral effects
- 05 ○ Lung damage
- 06 ○ Genetic problems/sterility
- 07 ○ Other physical health problems
- 08 ○ Increase/risk of accidents or injury
- 09 ○ Other (specify) _____
- 10 ○ Don't know

The next few questions are about safety.

52. On average, about how many miles or kilometres per week do you travel in a private vehicle . . .

As a driver?

1 [ ][ ][ ][ ] miles or 2 [ ][ ][ ][ ] kilometres

- 3 ○ Don't know

53. On average, about how many miles or kilometres per week do you travel in a private vehicle . . .

As a passenger?

4 [ ][ ][ ][ ] miles or 5 [ ][ ][ ][ ] kilometres

- 6 ○ Don't know

54. How often do you use seatbelts when you ride in a car? (Read responses)

- 1 ○ Always
- 2 ○ Most of the time
- 3 ○ Sometimes
- 4 ○ Rarely or never

55. When you are driving a car do you insist that the children with you have their seatbelt fastened or are in carseats? (Read responses)

- 1 ○ Always
- 2 ○ Most of the time
- 3 ○ Sometimes
- 4 ○ Rarely or never
- 5 ○ Don't drive
- 6 ○ Don't drive with children in car

56. In the past 3 years have you taken any training to administer first aid?

- 7 ○ Yes
- 8 ○ No

57. Can you administer cardio-pulmonary resuscitation, sometimes called CPR?

- 1 ○ Yes
- 2 ○ No

58. Would you agree or disagree with the following statement? It is worth learning CPR even though few people ever have to use it.

- 3 ○ Agree
- 4 ○ Disagree
- 5 ○ No opinion

59. Do you have the following in your home?

	Yes	No
A first aid kit	1 ○	2 ○
A smoke detector	3 ○	4 ○
A fire extinguisher	5 ○	6 ○

60. Interviewer check item:

Respondent is: Female 7 ○ → Go to 61
Male 8 ○ → Go to 66

The next questions are about health practices.

61. In the past 12 months have you had your breasts examined by a doctor or nurse?

- 1 ○ Yes
- 2 ○ No

62. Have you ever been shown how to examine your breasts?

- 3 ○ Yes
- 4 ○ No

63. How often do you examine your own breasts? Would you say . . .

- 5 ○ At least once a month
- 6 ○ Once every 2-3 months
- 7 ○ Less often
- 8 ○ Never

64. How often do you think a woman should examine her own breasts?

- 1 ○ At least once a month
- 2 ○ Once every 2-3 months
- 3 ○ Less often
- 4 ○ Never
- 5 ○ Don't know

65. When was the last time you had a PAP smear test for cancer ?

- 1 ○ Within the past yea.
- 2 ○ Last 2-3 years
- 3 ○ More than 3 years
- 4 ○ Never
- 5 ○ Don't know

The next few questions are about social relationships.

66. About how many people, including relatives, do you consider to be your friends, that is, people you see socially on a regular basis?

☐

67. Of the people you see socially how many smoke cigarettes? (Read responses)

1○ None
2○ A few
3○ About half
4○ Most or all
5○ Don't know

68. How many would you say drink too much? (Read responses)

1○ None
2○ A few
3○ About half
4○ Most or all
5○ Don't know

69. How many of your friends use marijuana regularly? (Read responses)

1○ None
2○ A few
3○ About half
4○ Most or all
5○ Don't know

70. How many of your friends exercise regularly? (Read responses)

1○ None
2○ A few
3○ About half
4○ Most or all
5○ Don't know

71. How many do you consider to be your close friends, that is, people you could talk to if you needed help or had a problem? (Read responses)

1○ None
2○ A few
3○ About half
4○ Most or all
5○ Don't know

72. What is your current marital status?

1○ Married (including common-law)
2○ Single/never married
3○ Separated
4○ Divorced
5○ Widowed

→ Go to 74

73. Does your spouse do any of the following?

	Yes	No
Exercise regularly	01○	02○
Smoke cigarettes	03○	04○
Drink too much	05○	06○
Overeat	07○	08○
Use tranquilizers such as valium	09○	10○
Smoke marijuana	11○	12○

The next questions are about nutrition.

74. In the last week on how many days did you have the following for breakfast?

Nothing or just coffee or tea ☐
Eggs, bacon, ham or other meat ☐
Breads, pastries, pancakes or cereals ☐
Fruit or juice ☐
Cheese, milk or other dairy products ☐

75. Are there any foods which you think you should limit or avoid, for the sake of your health?

1○ Yes 2○ No → Go to 77

76. Of the following types of food, which one do you feel is the most important to limit or avoid for the sake of your health? Food that is...

3○ High in cholesterol
4○ High in fat
5○ High in sugar
6○ High in salt
7○ Don't know

77. Are there any foods which you think you should eat more often for the sake of your health?

8○ Yes 9○ No → Go to 79

78. Of the following types of food, which one do you feel is the most important to eat more often for the sake of your health? Foods such as...

1○ Fruits and vegetables
2○ Whole grain cereals
3○ Milk and milk products
4○ Meat/fish/poultry
5○ Don't know

79. I will now read a list of health topics. For each one I'd like your opinion about how important you feel it is for the government to deal with each topic. Tell me on a scale from 1 to 10, with 1 being not at all important and 10 being extremely important.

	Not at all important 1	2	3	4	5	6	7	8	9	*Extremely important* 10	*Don't know*
Drug use	01○	02○	03○	04○	05○	06○	07○	08○	09○	10○	11○
Smoking	12○	13○	14○	15○	16○	17○	18○	19○	20○	21○	22○
Alcohol problems	23○	24○	25○	26○	27○	28○	29○	30○	31○	32○	33○
High blood pressure	34○	35○	36○	37○	38○	39○	40○	41○	42○	43○	44○
Child health	45○	46○	47○	48○	49○	50○	51○	52○	53○	54○	55○
Eating habits	56○	57○	58○	59○	60○	61○	62○	63○	64○	65○	66○
Mental health	67○	68○	69○	70○	71○	72○	73○	74○	75○	76○	77○
Accident prevention in the home	78○	79○	80○	81○	82○	83○	84○	85○	86○	87○	88○
Accident prevention at work	89○	90○	91○	92○	93○	94○	95○	96○	97○	98○	99○
Accident prevention on the road	100○	101○	102○	103○	104○	105○	106○	107○	108○	109○	110○

80. Do you agree or disagree with the following statements?

	Agree	Dis-agree	No opinion
Following a healthy diet is expensive and time consuming	1○	2○	3○
I'd rather be overweight than have to give up many of the foods I like	4○	5○	6○
Skipping breakfast is an effective way to control or reduce your weight	7○	8○	9○

81. Do you think that you could improve your health by changing your eating habits?

1○ Yes

2○ No

3○ Don't know

Finally a few questions about yourself.

82. What is the highest grade or level of education you have ever completed?

1○ No schooling

2○ Elementary

3○ Some } Secondary

4○ Completed }

5○ Some } Community college, technical college, CEGEP, nurse's training

6○ Completed }

7○ Some } University or teacher's college

8○ Completed }

9○ Other education or training

83. What language do you speak at home most often?

1○ English

2○ French

3○ Other

84. What is the postal code for this dwelling?

[ ][ ][ ] [ ][ ][ ] 4○ Don't know

85. How many telephones, counting extensions, are there in your dwelling?

1○ One ——→ Go to 90

2○ Two or more

86. Do all the telephones have the same number?

3○ No

4○ Yes ——→ Go to 90

87. How many different numbers are there?

[ ][ ]

88. Are any of these numbers for business use only?

5○ No ——→ Go to 90

6○ Yes

89. How many are for business use only?

[ ][ ]

90. Which of the following best describes your main activity during the last 12 months? Were you mainly...

- [1] Working at a job or business → Go to 92
- [2] Looking for work → Go to 91
- [3] A student
- [4] Retired
- [5] Keeping house
- [6] Other (specify) _____

→ Go to 96

91. Did you have a job at any time during the last 12 months?

[1] Yes [2] No → Go to 96

92. For whom do/did you work?

93. What kind of business, industry or service is/was that?

94. What kind of work do/did you do?

95. How many persons does this company employ? Include persons in all branch locations of the company. Are there...

- [3] Over 100
- [4] Between 50 and 100
- [5] Between 10 and 49
- [6] Under 10
- [7] Don't know

96. In the last five years have you been unemployed for a year or longer?

[1] Yes [2] No

97. Interviewer check item:

If code 1 in question 90 [3] → Go to 98
Otherwise [4] → Go to 104

98. Are you aware of any safety or accident prevention programs at your place of work?

[5] Yes [6] No [7] Don't know

99. Are you aware of any other programs to improve health, physical fitness or good nutrition?

[1] Yes [2] No [3] Don't know

100. In the past year, have you seen or received any information about health topics at your place of work? (e.g. posters, bulletin boards, pamphlets, etc.)

[4] Yes [5] No → Go to 102

101. Have you found the information helpful?

[6] Yes [7] No

102. Is smoking restricted in your place of work...

- [1] Completely
- [2] In certain places
- [3] Not at all
- [4] Don't know

103. Do you think your place of work is an appropriate place to promote good health habits?

- [5] Yes
- [6] No
- [7] Don't know

104. Do you think schools are an appropriate place to promote good health habits?

- [1] Yes
- [2] No
- [3] Don't know

105. What was your household's total income from all sources before taxes and deductions for 1984?

☐☐☐☐☐☐ 00 [4] Don't know

106. What is the single most important thing you have done in the past year to improve your health?

- [01] Nothing → Go to 109
- [02] Increased exercise
- [03] Lost weight
- [04] Improved eating habits
- [05] Quit smoking/reduced amount smoked
- [06] Reduced drug/medication use
- [07] Drank less alcohol
- [08] Had blood pressure checked
- [09] Attempted to control blood pressure
- [10] Learned to manage stress
- [11] Reduced stress level
- [12] Received medical treatment
- [13] Other (specify) _____

107. Aside from improving your health, was there any other reason that you decided to do this?

[1] ○ Yes

[2] ○ No ——→ Go to 109

108. What was the other reason?

|_|_|_